

SL-1 NC-91/1

Time: 08:00 a.m. CDT, 6:19:30 GET  
5/21/73

PAO Good morning, this is Skylab Control emanating from the Johnson Space Center, Houston, Texas, at 8:00 a.m. central daylight time, May 21. The major activity at the Control Center here continues to be the management of the temperatures in the orbital workshop. This thermal management has been maintained by maneuvering the OWS in the Z-local vertical attitude from approximately 48 degrees to around 52 degrees. Airlock module coolant water loop has remained fairly stable in the range of 34.2 degrees Fahrenheit to 34.7 degrees. It's the desire of the flight controllers here to raise that temperature slightly and that's what they are working on at the present time. Tape recorder in the Apollo telescope mount temperatures of - temperatures in that area have decreased since we turned those tape recorders off yesterday. And the predictions are that those temperatures will stabilize in the 46 to 50 degree Fahrenheit range. There is on schedule an OWS purge cycle and the decision has been made for this purge cycle to use nitrogen. Two basic reasons for that nitrogen produces less carbon monoxide and by using nitrogen we conserve on the oxygen supply. We are expecting to have a change-of-shift briefing at the Johnson Space Center involving the off-going flight director Donald R. Puddy. That briefing should take place approximately 8:45 central daylight time, roughly 42 to 45 minutes from now. The Skylab space station at this time is over India at 13 hours 3 minutes 50 seconds Zulu. This is Skylab Control.

END OF TAPE

SL-1 MC-92/1

Time: 8:26 a.m. CDT, 06:19:36 GMT  
5/21/73

PAO This is Skylab Control with an advisory for newsmen. The change-of-shift briefing which we had advertised earlier as starting at 8:45 a.m. CDT now will slip to 9:00 a.m. CDT. At 13 hours 26 minutes, this is Skylab Control.

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SL-1 MC-93/1

Time: 10:00 AM CDT, 6:21:29 GMT

5/21/73

PAO This is Skylab Control; 1500 hours GMT. Skylab space station is in contact with the Carnarvon Tracking Site in Australia. On the 100th revolution. The orbital parameters at this time are 238.3 nautical miles at the high point, 235.2 nautical miles at the low point. The space station is traveling around Earth at 25 091 feet per second and it requires 1 hour and 33 minutes to make a revolution. The prime crew, consisting of Charles (Pete) Conrad, Dr. Joseph Kerwin, and Paul Weitz, this morning have been participating in pre- and post-standup EVA procedures using the command module simulator at the Johnson Space Center. This afternoon the prime crew will do a standup EVA walk-through and incidentally all these activities have been in the shirtsleeve environment. At the present time, the plan is for the prime crew to leave Ellington Air Force Base for the Marshall Space Flight Center this evening at 5:00 p.m. central daylight time. Meanwhile, in the Control Center here, the flight control team under the direction of Milton Windler have been walking a thermal tightrope so to speak managing temperatures in the orbital workshop, and generally speaking, the temperatures in the interior reach approximately 110 degrees. That has not significantly changed since we last talked with you. At 15 hours 3 minutes Zulu time, this is Skylab Control.

END OF TAPE

SL-1 NC-94/1

Time: 11:00 a.m. CDT, 06:22:29 CDT

5/21/73

P/O This is Skylab Control at 11:00 a.m. central daylight time, top of the hour. The Skylab spacecraft has just completed a stateside pass, and at that time the flight controllers here at the Mission Control Center at the Johnson Space Center were monitoring the temperatures and momentum rates and reported very little new, indicating that the station was operating within the limits that had previously been discussed. We are currently approaching contact with the Madrid station and have approximately 20 minutes, or so, of orbital daylight time left as the spacecraft heads in a southeasterly direction across Europe and down over Africa. At 16 hours 1 minute G.m.t., this is Skylab Control.

END OF TAPE

SL-1 MC-95/1

Time: 12:00 a.m. CDT, 6:23:29 GET

9/21/73

PAO This is Skylab Control at 1700 hours GMT. The space station is over the South Pacific at this time on the 101st rev. For the last hour we've had very little contact with the unmanned Skylab. We had a brief contact at the Honeysuckle station and at that time the telemetry data on attitude control thermal inputs, thermal management was no different than the last stateside pass. So essentially there have been no major changes from the last report. We will acquire the spacecraft at the Goldstone tracking station in California in approximately 14-1/2 minutes. At 1700 hours 1 minute and 35 seconds Zulu, this is Skylab Control.

END OF TAPE

SL-1 MC-96/1

Time: 1:00 PM CDT, 7:00:29 CET

5/21/73

PAO THIS is Skylab Control at 1:00 PM central daylight time. The space station currently is flying at the following orbital altitudes: 238.9 nautical miles at the high point, and 235.1 nautical miles at the low point. At the Mission Control Center, the flight controllers of course, are still engaged in temperature management which has been a key issue and will continue to be a key issue. Space station at the present time is traveling at 25 092 feet per second over the tip of Africa, southeast area, on revolution 102. At an elapsed time of 7 days 31 minutes this is Skylab Control.

END OF TAPE

SL-1 MC-97/1

Time: 2:00 p.m. CDT, 07:01:30 GMT

5/21/73

PAO This is Skylab Mission Control at 1 second after the hour. At the present time, the spacecraft is traveling over the United States on an ascending node of revolution 102. At the present time it has a maximum altitude of 238.8 nautical miles; and a minimum of 235.0 nautical miles, as it travels approximately 270 statute miles above the Earth. Temperature management procedures are still being performed as flight controllers seek to bring the temperature at the inlet to the suit, water coolant loop, above 34 degrees, where it has remained for several hours. At the same time, they are attempting to keep workshop temperatures to a minimum. They have, during the past hour, been doing some attitude maneuvers and are now attempting to judge the success of those, as they are within range of the United States tracking stations. This is Skylab Mission Control at 55 seconds after the hour.

END OF TAPE

SL-1 MC-98/1

Time: 3:00 p.m. CDT, 7:02:30 GRT

5/21/73

PAO This is Skylab Mission Control at 1 second after the hour. The spacecraft at the present time is coming into range of the tracking stations over Australia. They have done a slight pitch reduction to 41 degrees up-pitch now at the present time, and a slight roll correction to adjust for drift during the past hour. At the present time they are still reading 34 degrees of temperature at the coolant loop for the suits. And this new attitude is expected to have some effect on that temperature and are attempting, of course, to raise the temperature in the coolant loop to prevent freezing in the aluminum pipes. At the present time there appears to be no danger of this. The temperature is still above freezing point and they have marked a red line at 33.2 degrees for possible area of concern. There are plans underway and they expect to complete them in the next 4 to 6 hours to derive a new means of achieving thermal balance in the spacecraft. This attitude which is intended to raise the temperature in that suit coolant loop may also have the effect of raising temperatures in the orbital workshop several degrees. There is a change of shift briefing scheduled for 4:15 with flight director Milt Windler who will be off going at that time. At the present time the spacecraft is in its 103rd revolution on an ascending node returning toward the United States. It is traveling at a speed of 25 104.8 feet per second. That's 25 104.8 feet per second. Its high point in altitude is 239.1 nautical miles, with a low point at 235.1 nautical miles. This is Skylab Mission Control at 1 minute and 54 seconds after the hour.

END OF TAPE



SL-1 MC-97/1

Time: 1600 CDT, 7:03:30 CET

5/21/73

PAO This is Skylab Mission Control at 1 second after the hour. The space station is now traveling on a descending node of the 104th revolution, just at the beginning of it's 104th revolution, traveling in the south Atlantic just about to cross the equator. At the present time, it's attitude is pitched up 39 degrees with a 10 degree off, and no roll. Attitude is being determined at this time by temperature and electrical power data. This data is derived from both external surface temperatures on the workshop and also from the electrical power output of the Apollo telescope mount solar array system. Biomedical personnel have set a limit of 24 hours for continued operation at elevated temperatures in the food storage area. Temperatures were elevated early this morning at about 6 a.m., central daylight time, when the space station was rolled 51 degrees clockwise to achieve temperature balance elsewhere in the orbital workshop. At the present time, temperatures are - continue to read above 120 degrees Farenheit in the food storage areas, that's off-scale high. Our temperature sensors read no higher than 120 degrees in that area, and flight controllers are preparing plans now to bring temperatures back within safe limits for film and food storage before 6 a.m., central daylight time, tomorrow morning. Biomedical personnel indicated that 24 hours at elevated temperatures would not do additional damage to any food in the workshop. This is Skylab Mission Control at 1 minute and 43 seconds after the hour.

END OF TAPE

SL-1 MC-100

Time: 16:11 CDT 7:03:40 GMT

5/21/73

PAO                      This is Skylab Mission Control at 10 minutes and 15 seconds after the hour. The flight director informs me that he should be available for a change of shift briefing in approximately 10 minutes. That's our 4:15 briefing - possibly will be rescheduled for about 4:20 to 4:25. This is Skylab Mission Control at 10 minutes and 32 seconds after the hour.

END OF TAPE

SL-1 MC-101/1

Time: 1623 CDT, 7:03:53 GET

9/21/73

PAO                      This is Skylab Mission Control at 23 minutes and 2 seconds after the hour. Flight Director Milton Windler has left the Mission Control Center after turning control to Charles Lewis. He's expected to be at a change-of-shift briefing within 5 minutes. Coming with Mr. Windler will be his EGIL, that's EGIL, Craig Staresinich. The EGIL is the Skylab Workshop Electrical General Instrumentation and Flight Support Systems Engineer. The EGIL is Craig Staresinich. Mr. Windler and Mr. Staresinich are on their way now to building 1 for the press conference at Johnson Space Center. This is Skylab Mission Control at 23 minutes and 54 seconds after the hour.

END OF TAPE

SL-1 MC-102/1

Time: 1900 GMT, 7:05:30 GMT

5/21/73

PAO                      This is Skylab Mission Control at 33 seconds after the hour. At the present time the spacecraft is in it's 105th revolution, passing out of range of tracking stations in the southern part of the Indian Ocean, beginning an ascending node at approximately 60 degrees east latitude. It's period at this time is 1 hour 33 minutes and 9.2 seconds. It's traveling at the speed of 25,093.9 feet per second, approximately 100 miles an hour. The maximum point in it's altitude 239.2 nautical miles with a minimum of 235.0 nautical miles. At the last tracking site, internal pressure in the orbital workshop is reading about 1 pound per square inch of nitrogen as the process of depressurizing and repressurizing is temporarily interrupted. Of the 25 temperature sensors displayed on the Skylab workshop atmospheric temperature display at Mission Control, 10 continue to read off-scale high, with the remainder ranging from 55.9 degrees in the multiple docking adapter, to 115.2 degrees on the ceiling of the experimental compartment in the orbital workshop. The temperature sensor at the inlet to the suit coolant loop continues unchanged at 34 degrees Fahrenheit, as it has throughout the day. Further attitude maneuvers to provide appropriate thermal control are presently under discussion both at Mission Control and with planning teams at the Marshall Space Flight Center. This is Skylab Mission Control at 2 minutes and 20 seconds after the hour.

END OF TAPE

SL-1 MC-103/1

Time: 1900 CDT, 7:06:30 CET

5/22/73

PAO This is Skylab Mission Control at 2 seconds after the hour. At the present time the space station is traveling over the Gulf of Mexico, nearly at the end of it's 105th revolution. The period of revolution is 1 hour 33 minutes 19.2 seconds, it's maximum height 239.2 nautical miles, minimum height 235.0 nautical miles, velocity 25,090.8 feet per second. Temperatures in the food storage area are expected to remain above the level desired for long-term storage during the overnight period. During the previous days the temperature in the food lockers hovered between 105 and 110 degrees, well within safe limits. Temperature sensors in this area read a maximum of 120 degrees and presently register off-scale high, or above 120 degrees. A graph of temperatures made at Marshall Space Flight Center indicates that food temperatures may now be estimated at about 127 degrees. Biomedical personnel have set limits of 24 hours for operation at these higher temperatures. Attitude corrections for temperature which must be balanced against attitude requirements for solar power, attitude requirements for proper heating of the airlock module and coolant for suit umbilical systems, and attitude adjustments necessary to keep control moment gyros functioning at the optimum standards and with minimal consumption of thruster attitude control system gas are presently being determined at Mission Control in Houston. There are no additional problems since early this morning. We continue to monitor all systems. This is Skylab Mission Control at 1 minute and 57 seconds after the hour.

END OF TAPE